

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended): A mobile station comprising:

a transmit buffer for storing data about a plurality of communication services on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

an amount-of-data information determining ~~means for monitoring~~ unit that monitors the data which are stored in said transmit buffer on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis ~~[[so as]]~~ to determine at least one value indicating an amount-of-data stored on a communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~; and

a transmitting ~~means for transmitting~~ unit that transmits the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ determined by said amount-of-data information determining ~~means~~ unit to a base station.

2. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining ~~means~~ unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ into a binary digit number, and outputs the ~~amount-of-data information indicating the~~ binary digit number to the transmitting ~~means~~ unit.

3. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining ~~means~~ unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ into a data occupation ratio of the transmit buffer, and outputs the ~~amount-of-data information indicating~~ the data occupation ratio to the transmitting ~~means~~ unit.

4. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining ~~means~~ unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ into a time, and outputs the ~~amount-of-data information indicating~~ the time to the transmitting ~~means~~ unit.

5. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining ~~means~~ unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ into a transmission rate, and outputs the ~~amount-of-data information indicating~~ the transmission rate to the transmitting ~~means~~ unit.

6. (Currently Amended): The mobile station according to Claim 5, wherein said amount-of-data information determining ~~means~~ unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ into a number of bits per second or a number of bits per unit time.

7. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining ~~means~~ unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ into a channel amplitude coefficient or a channel amplitude coefficient ratio, and outputs the ~~amount-of-data information indicating~~ the channel amplitude coefficient or the channel amplitude coefficient ratio to the transmitting ~~means~~ unit.

8. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining ~~means~~ unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ into a power dimension or a power dimension ratio, and outputs the ~~amount-of-data information indicating~~ the power dimension or the power dimension ratio to the transmitting ~~means~~ unit.

9. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining ~~means~~ unit outputs an index indicating a combination of pieces of communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information to the transmitting ~~means~~ unit, instead of the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~.

10. (Currently Amended): A base station comprising:

a receiving ~~means for receiving~~ unit that receives at least one value indicating an amount of data stored in a transmit buffer of a mobile station on a communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount of data information~~ from ~~[[a]]~~ the mobile station;

an assignment determining ~~means for determining~~ unit that determines assignment of radio resources for data to be transmitted from said mobile station according to the at least one value indicating the amount of data stored in the transmit buffer of the mobile station on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount of data information~~ received by said receiving ~~means~~ unit; and

a notifying ~~means for notifying~~ unit that notifies transmission control information indicating the assignment of radio resources determined by said assignment determining ~~means~~ unit to said mobile station.

11. (Currently Amended): A communication system provided with a base station which notifies transmission control information indicating radio resources, and a mobile station which transmits data to said base station according to the transmission control information notified from said base station,

said mobile station comprising:

a transmit buffer for storing data about a plurality of communication services on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

an amount-of-data information determining ~~means for monitoring~~ unit that monitors the data which are stored in said transmit buffer on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis ~~[[so as]]~~ to

determine at least one value indicating an amount-of-data stored on a communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~; and

a transmitting ~~means for transmitting~~ unit that transmits the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis ~~amount-of-data information~~ determined by said amount-of-data information determining ~~means~~ unit to said base station, and said base station comprising:

a scheduler for assigning radio resources used for carrying out data transmission to said mobile station according to the at least one value indicating the amount-of-data stored information received from said mobile station.

12. (Currently Amended): An amount-of-data information transmission method comprising ~~the steps of~~:

monitoring data ~~which are~~ transmitted from a terminal on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

determining at least one value indicating an amount-of-data stored ~~amount-of-data information indicating an amount-of-data~~ on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis; and

transmitting the at least one value indicating the amount-of-data stored ~~amount-of-data information~~ which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis to a base station.

13. (Currently Amended): A transmission-control-information notification method comprising ~~the steps of~~:

when a base station receives at least one value indicating an amount-of-data stored in a transmit buffer of a mobile station ~~amount-of-data information~~ which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis from ~~[[a]]~~ the mobile station, determining radio resources for data to be transmitted from said mobile station according to the at least one value indicating the amount-of-data stored ~~amount-of-data information~~; and

notifying transmission control information indicating the radio resources to said mobile station.

14. (Currently Amended): A wireless communication method comprising ~~the steps~~ of:

when data about a plurality of communication services are stored in transmit buffers on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis, monitoring the data which are stored in the transmit buffers on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

determining at least one value ~~amount-of-data information~~ indicating an amount of data stored on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

transmitting the at least one value indicating the amount-of-data stored ~~amount-of-data information~~ which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis to a base station;

when the base station receives the at least one value indicating the amount-of-data stored ~~amount-of-data information~~ which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis from a

mobile station, determining radio resources for data to be transmitted from said mobile station according to the at least one value indicating the amount-of-data stored ~~amount-of-~~
~~data information;~~

notifying transmission control information indicating the radio resources to said mobile station; and

said mobile station transmitting the data to said base station according to the transmission control information notified from said base station.